

Intercommunication System Control Model A201-12



Model A201-12

FACILITIES AND OPERATING CONTROLS

All operating controls are mounted on the front panel.

TALK OPERATION: A five-position rotary selector switch provides for selection, control, and voice modulation of four transmitters. The extreme CCW position of the selector provides intercommunication on the Interphone Line.

HOT MIKE OPERATION: A HOT MIKE talk switch provides HOT MIKE operation on the Interphone Line.

MONITORING: Seven monitor switches provide for individual selection and mixing of nine audio inputs. One switch controls three inputs.

LEVEL ADJUSTMENT: A master volume control permits adjustment of the headset level.

OPTIONS: Night vision capability

DESCRIPTION AND USE

The A201-12 is a miniature, lightweight, self-contained solid state Intercommunication System Control. It is designed to be the basic control unit for a two or three position Intercommunication System of advanced design. In addition to intercommunications and radio monitoring facilities, the control provides for selection, control, and modulation of radio transmitter for communications with airborne, ground, or mobile station.

The A201-12 contains modular microphone and headset amplifiers.

Andrea has FAA certification TSO-C50b for the A201-12.

C46-5371 Rev C

TSO INFORMATION

TSO-C50b CAT AAAAAE

Temperature Altitude Cat A is:

Max altitude	45,000 ft
Test altitude	55,000 ft
Not Operating	-62° C to +71° C
Short time operation high temp	+71° C
Operating temp	-54° C to +55° C

Vibration Cat A is for rotary wing aircraft is:

0.030" displacement from 10 to 55 Hz, max 5 G acceleration
5 G constant acceleration from 55 Hz to 500 Hz

Audio Freq Magnetic field susceptibility Cat A is:

Equipment exposed to 400 Hz current of 20 A 12 inches away

RF Susceptibility Cat A is:

Per FAA Environmental Test Procedures for Airborne Electronic Equipment (August 31, 1962) and includes Radiated and Conducted tests, but the levels do not translate to current definitions, require specific antennas.

Emission of spurious RF energy category A is:

Per FAA Environmental Test Procedures for Airborne Electronic Equipment, August 31, 1962, and includes Radiated and Conducted tests, but the levels do not translate to current definitions, require specific antennas

Explosion category E is:

Mil-C-9435 test chamber with 100/130 Octane gasoline

Humidity (48 Hour)

Shock

Power Input Test

Low Voltage Test

Conducted Voltage Transient

GENERAL CHARACTERISTICS

Mean time Between Failure.....	18000 hrs. calculated
Input Voltage.....	27.5 VDC (21-29 V)
Input Power.....	5 W Max.
Weight.....	1.85 lbs. maximum
Size.....	5-3/4" W x 3" H x 5-1/2" D
Lighting.....	Two 27.5 V lamps w/ red filters

ENVIRONMENTAL

	MIL-E-5400 Class 1
Temperature Continuous Operation.....	-54° C to +55° C
Intermittent Operation.....	+55° C to +71° C

IMPEDANCE LEVELS

Microphone Input.....	5 ohms (Dynamic microphone)
Talk-out (INT & XMIT).....	150 ohms load
Receiver Input.....	150 ohms load
Headset Output.....	8 ohms load

POWER LEVELS

Microphone Input.....	-80 to -30 dBm
Int. Talk-out.....	.75 V +/-20%
Transmit Talk-out.....	2.75 V +/-15%
Receiver Input.....	50 mW (2.75 V)
Headset Output.....	200 mW (1.25 V)

MICROPHONE AMP PERFORMANCE

AGC.....	The AGC maintains constant output for wide variations in input
Breakpoint.....	0.2 to 0.5 V applied to the 5000 to 5 ohm pad
Slope.....	3 dB Max. output change for 20 dB input change
Attack Time.....	0.2 Sec. maximum
Release Time.....	7 Sec. +/-20 %
Distortion.....	3% maximum for - 50 dBm input, 5% maximum up to - 30 dBm input

HEADSET PERFORMANCE

Distortion.....	10% maximum for 200 MW output
Freq. Response.....	+1 dB, -3dB, 300 to 6000 Hz (both amps)
Ripple.....	5 mV maximum for both amps with 1.0 V on the power line, 400 to 6000 Hz

ISOLATION AT 1 KHz

Open Monitor Switch.....	-60 dB minimum
Audio Input Lines.....	-60 dB below 50 mW
Transmit Lines.....	-70 dB below 50 mW (2.75 V)
Volume Control Range.....	28 to 37 dB